MICHIGAN FARMER.

Devoted to Agriculture, Horticulture, and Domestic and Rural Affairs.

NEW Perfect Agriculture is the foundation of all Trade and Industry.--Liebig. SERIES.

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The Bones of Plants.

Do plants have bones? No, not exactly such bones as you and I and other individuals of the animal kingdom, and yet they have a solid frame work, which in many particulars is analogous to the bone of the animal system. To make this frame work, which we call wood, and which, in contradistinction to the animal, is called vegetable, it is necessary that it have some material. Well, this material is much of it the same as much of the material that enters into the bones of animals, viz: mineral matter, such as lime and potash and some other of the earths and alkalies. Where do they get these? They must pump it up, in a disolved state, from the soil, for it is very evident that they cannot take it into the minute and delicate pores of the roots and stems and leaves in a solid state. It is necessary, therefore, that these mineral matters should be dissolved by the moisture or water which is in the soil. A good soil contains them in the right state to be dissolved up. But a tree or a crop will in time pump up all that there is in that spot, and as plants cannot move about from place to place, in order to supply themselves when the food suitable for them has become exhausted, they must either languish or it must be supplied to them by the hands of man.

The manure of domestic animals contains more or less of these materials, for they eat this vegetable matter, and of course this matter is not annihilated but changed by the operation, and what is not converted to the animal body is thrown out in a condition in which it can be again dissolved and passed into the system of plants, by which it can again become food for animals,and thus goes the rounds—from the mineral kingdom into the vegetable, and from the vegetable into the animal, and from the animal again to the mineral.

Vegetables or plants are the medium through which animals receive mineral matter in a form and condition to be assimilated to their own bodies. Hence one reason why animal manures are of such universal application, and good for every crop. They are, in fact, the necessary ingredients of plants, *chopped into minced meat*, already to be taken into the mouths of plants and be eaten by them. We cannot always obtain animal manures, but this need not hinder us from manuring our lands, crops, trees &c., with other matters made up of some of the materials required. It may be asked, however, here, how do we know that plants, a tree for instance, contains these mineral matters, and therefore requires any supply of the kind? It has been ascertained by chemical analysis. This has been done repeatedly by different chemists in their laboratories, with instruments and tests and reagents nicely calculated to obtain the most accurate results, and to separate, weigh and measure each ingredient, even to the fifteen-hundredth part of a grain. But many a farmer has analysed them in part, although in rather a rough manner. The man who makes potash and pearlash, analyses the wood of the forest, and ascertains the result. He seeks, it is true, but for one of the ingredients, but as far as he goes, it is, to all intents and purposes, a thourough analysis, and he can tell you, from experience, that the *bones* of some plants or trees contain much more potash than others. If it were an object to him, he would, in a similar manner, learn how separate lime from the ashes of trees, and clay or alumine from the ashes of trees and other mineral matters, and would tell you that these all varied in quantity according to the kind of tree or the circumstances under which it grew. In the application of this knowledge to the culture of trees and plants, consists the great art of successful farming.—*Maine Farmer*.

Young Apple Orchards.

It is an indispensable requisite, in all young orchards, to keep the ground mellow and loose by cultivation; at least for the first few years, until the trees are well established. Indeed, of two adjoining orchards, one planted and kept in grass, and the other ploughed for the first five years, there will be an incredible difference in favour of the latter. Not only will these trees show rich dark luxuriant foliage, and clean smooth stems, while those neglected will have a starved and sickly look, but the size of the trees in the cultivated orchard will be treble that of the others at the end of this time, and a tree in one will be ready to bear an abundant crop, before the other has commenced yielding a peck of good fruit. Fallow crops are the best for orchards,—potatoes, vines, buckwheat, roots, Indian corn, and the like. An occasional crop of grass or grain may be taken; but clover is rather too coarse-rooted and exhausting for a young orchard. When this, or grass, is necessarily grown among young trees for a year or two, a circle of three feet diameter should be kept loose

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by digging every season about the stem of each tree.

When the least symptom of failure or decay in a bearing orchard is perceived, the ground should have a good top-dressing of manure, and of marl, or mild lime, in alternate years. It is folly to suppose that so strong growing a tree as the apple, when planted thickly in an orchard, will not, after a few heavy crops of fruit, exhaust the soil of much of its proper food. If we desire our trees to continue in a healthy bearing state, we should, therefore, manure them as regularly as any other crop, and they will amply repay the expense. There is scarcely a farm where the *waste* of barn-yard manure.—the urine, etc., if properly economized by mixing this animal excrement with the muck-heap—would not be amply sufficient to keep the orchards in the highest condition. And how many moss-covered, barren orchards, formerly very productive, do we not every day see, which only require a plentiful new supply of food in a substantial top-dressing, thorough scraping of the stems, and washing with diluted soft soap, to bring them again into the finest state of vigor and productiveness?—*Downing's Fruit Trees.*

Profits of wool Growing.

It is said by some agricultural writers, that it takes one acre of land to sustain five sheep, during summer and winter. We, however, will calculate one acre to *three* sheep. The land which would do this, we calculate at $7 the acre, if fenced in large lots. The price of sheep immediately after shearing, averages, say $1, and lambs, 75 cents. The average increase of lambs, is said to be 80 per cent. The profit and loss account with 100 sheep, would be thus, interest being 10 per cent:

Sheep Account—Debtor.

100 sheep, to interest of purchase money,	$10.00
Interest of 33 acres of land, at $7,	23.10
To curing and stowing hay, on 9 acres above,	6.25
To expense of shearing.	3.00
To loss by death, 2 per ct. over pulled wool,	2.00
Labor of foddering during winter, say	5.00
Salt, tar, and summer care,	4.00
Interest on winter shelter, worth (say $25,)	2.50
	$55.85

Credit.

By 300 lbs. wool, 25 cts.	$75.00
80 lambs, 75 cts.	60.00
	$135.00
Cost as above,	55.85
Balance,	$79.15

Giving a profit of over 79 cents a head, or eighty per cent, on the investment for a hundred sheep.

Now if we are wrong in these calculations, we shall be made happy to correct them, if our agricultural readers will point them out. We give them, in the hopes of eliciting remarks from others, whose communications it will afford us pleasure to lay before the farmers of our State.—*Iowa Farmer.*

To Wool Growers.—Why dont you give more attention to your sheep, and take that pride that every farmer should do, in preparing your clip for the market? You should have it clean, free from burs, and properly tied up, instead of sending it to market in the dirty, slovenly, careless manner, in which a great portion of the western wool goes into the hands of the first purchaser. Do this, and you will obtain ten or fifteen per cent more for it. Dont say you have not time. That is not the fact; you have time. The real cause is probably you have *too much land.*

You are too much like the Southern planters, who think they are doing well just in proportion to the *size* of their cotton fields. They, like you, never foot up bills at the end of the season and learn that a little more time spent in doing a few things well, would be more profitable than running over many things and leaving all but half done.—*Iowa Farmer.*

Management of Oxen.

To procure perfect working cattle, it is necessary to begin with the proper breed. Many parts of the country furnish such as are well suited to this purpose. A strong dash of Devon or Hereford blood is desirable, when it needs to be improved. A well formed, compact, muscular body; clean, sinewy limbs; strong, dense bones; large, well-formed joints, with a mild expressive eye, are essential for good working oxen.

After breaking they must be led along gently and taught before they are required to perform their task; and never put to a load which they cannot readily move, nor dulled by prolonging exertion beyond that period when it becomes irksome. A generous diet is necessary, to keep up the spirit and ability of cattle, when there is hard work to be done. The horse and mule are fed with their daily rations of grain when at hard service, and if the spirit of the ox is to be maintained, he should be equally well fed, when as fully employed. Great and permanent injury is the result of nigardly feeding and severe toil, exacted from the uncomplaining animal. His strength declines, his spirit flags, and if this treatment be continued, he rapidly becomes the stupid, moping brute, which is shown off in degrading contrast with the more spirited horse, that performs, it may be, one half the labor, on twice his rations.

The ox should be as little abused by threats and whipping, as by stinted feed and overtasked labor. Loud and repeated hallooing, or the severe use of the lash, is as impolitic as it is cruel.

and disgraceful. We never witness this barbarity without wishing the brutes could change places, long enough at least to teach the biped that humanity by his own sufferings which his reason and sensibility have failed to inspire. Clear and intelligible, yet low and gentle words are all that are necessary to guide the-trained, spirited ox. The stick, or whip, is needed rather to indicate the precise movement desired, than as a stimulant or means of punishment. The ox understands a moderate tone more perfectly than a boisterous one, for all sounds become indistinct as they increase.

It is of great advantage to have oxen well trained to *backing*. They may be soon taught, by beginning with an empty cart on a descent; then on a level; then with an increasing load; or uphill, till the cattle will back nearly the same load they will draw.

Preparation of Coffee.—In Silliman's Journal we find a notice of a memoir on Coffee by the distinguised French chemist, M. Payen. The results brought out by his chemical researches agree exactly with facts previously known in regard to this article. A great error in the preparation of coffee, is that it is *burned too much* by which the liquid when it is brought to the table, is destitute of agreeable flavor, and has a bitter, unpleasant taste. The reason of this is shown.

"Coffee roasted only till it becomes slightly red preserves the maximum of weight and aroma, but gives out less coloring matter. In this state 100 pounds are found to have lost 15, but have increased to the bulk of 130. Roasted to a chesnut color, as is commonly done, the loss is 20 per cent, while the increase in volume is from 100 to 153. This swelling of the Grain depends upon the property which the nitrogenous matter deposited within the tissue has of puffing up remarkably when heated.

If the heat is continued until a dark brown color is produced, and the grain is covered with a sort of glaze, the loss is twenty-five per cent., while the original quantity of nitrogen, 245 per cent., is reduced to 177, being a loss of one-fourth."—*Iowa Farmer.*

N. Y. Farmers Club.

On the Amelioration of the breed of horses.—As a basis for a good breed shall we take the Arab blood, or the pure European blood? We have more confidence in the Arab blood—for purity it is nearest to the fountain, and in conformation it approaches nearest to what we want. That admirable symmetry of the Arab horse is however in comparative miniature. How many generations will it require to produce the requisite size? How many generations? Why three or four—five at the most. It is almost incredible with what rapidity the Arab horse, transplanted to our climate, increases his stature and form. This phenomenon, however, is easily explained, when we do not lose sight of the nature of the soil of Arabia, its temperature, the kind of nourishment and treatment to which the Arab horse is subjected from his birth. A few sprigs of vegetables, dried under a devouring sun, little water, and often none at all, at rare intervals a handful of barley. Such are the influences under which the growth of the young animal is developed. That he should become sober, active, and vigorous, may be readily conceived; but it is equally clear that under such regimen, it is impossible for him ever to acquire very considerable dimension, above all if we take into consideratien the bad treatment of which he is the butt from his tenderest years. For we must say, however painful it may be to destroy touching illusions! that the love of the Arab for his horse, the caresses of which he is so profuse, the lodgings which he shares with him, the tears which he plentifully sheds when his horse dies all these, cut an admirable figure (beyond a doubt) in our ballads; but unfortunately, this happens to be one of the thousand *Niaiseries* (fooleries) to which it is high time justice was done. Humbug is a word which much need—the more pity! The Arab loves his horse! Yes! no doubt, for he is of immense utility to him. He lodges his horse in his own house! There is a very simple reason for that. He has no stable and he is afraid to leave him out of doors for fear of his being either stolen or injured by wild beasts. He weeps at his death in a lively manner. That too is very natural, for the horse is to him as personal property an essential part. One easily comprehends why one does not smile at losing an animal worth some thousand of francs. There is no necessity for being an Arab for that, for such kind of sensibility may be readily found without going far. As for that, tenderness of heart, that platonic love, which we have been taught from our cradle, that is quite another affair. We have seen how he is led, now let us see how he is treated. Mounted at the age of 18 months or two years—from that moment the saddle never quits his back; his flanks are torn by stirrups which cut like knife blades, his mouth split by bits, the branches of which are as long as your arm; thus the poor beast goes every day, under his master, incredible distances. Does he happen to rest in camp for a day, then his horse has repose. Unhappily not so. That day, instead of being one of rest, is employed in *Fantasia*, the most extravagant exertions and most brutal and violent treatment, so that not unfrequently he perishes or is lamed for life.

☞Heaven did not give to women insinuation and pursuasion in order to be surly; it did not make them weak in order to be imperious; it did not give them a sweet voice to be employed in scolding.

Collecting Choice Seeds.

There is no way in which improvement can be made in agriculture, at so small an expense as by collecting seeds of superior varieties of vegetables, trees, scions, and of superior animals. It costs no more to raise a crop of an excellent variety, if we except the harvesting of a large crop, to cultivate superior fruit, or keep the best animals, than to attend to those of inferior kinds, which yield 25 or 30 per cent less.

At present we shall make a few remarks on superior vegetables, and the importance of collecting valuable seeds, as the present is a more favorable time for procuring them, than that of spring, when they will be wanted.

There is a vast difference in different varieties of vegetables. In some cases by the expense of one dollar in time or money, in getting a superior variety, there may be 10 or 12 added to the value of a crop on an acre of land; and a valuable kind being once obtained, perhaps it can be continued for many years, affording an annual advantage in return for a little attention to this mode of improvement.

In planting different varieties of potatoes on the same land, and under the same treatment, we find that some kinds yield almost twice as much as others, while there is no material difference in their value.—Again some kinds that do not rot are now worth a dollar a barrel more than those subject to decay, and which we re-sold while the price was low.

Sometimes a single ear of corn may prove to be worth more dollars to a farmer than the number of rows it contains. It may even make a difference to that amount annually.

Some kinds of wheat yield much more than others; and some varieties are less liable to rust and the grain worm than other kinds.

Grasses vary much, and there is a confusion in them for reasons which we will name at another time. Perhaps some farmers can get the kinds they want, from reliable sources.

Some oats mildew almost invariably, while others are almost wholly free from this affection. There is also a vast difference in the weight of oats; some weighing almost twice as much as others, and yet yielding as many bushels.

Some squashes, on account of their purity, will sell twice as high in the market as others, to say nothing of the advantage of having a superior article for one's own use.

It is about the same with all other vegetables. A gardener would better pay a dollar an ounce for cabbage seed of a pure variety, than to have poor seed given him. And we have known cases in which cultivators would have paid that price cheerfully, rather than run the risk of sowing poor.

There is a great variety of turnips, some adapted to very early use, others late in succession in the summer; some for fall, others for early winter, and a few that keep as well as parsneps for spring use. We once planted 50 varieties. There is a great advantage in having kinds adapted to their peculiar season.

Farmers, gardeners, seedsmen, and seed growers all pay too little attention to this subject. We ought to have professional seed growers who will attend to the business in a scientific manner, collecting all the varieties of vegetables for experiment, as a nurseryman does with his specimen orchard.—And the seed grower should select only the best vegetables to propagate from, for the same reason that a stock breeder selects for this purpose his finest animals.

The seed business, as a general thing, is not properly managed, and there is fault in all concerned, the seed grower, the vender, and the purchaser. The purchaser aims too much at buying *cheap*, some make this the only criterion. Then the dealer is induced to buy cheap, and to this end he may sometimes import seeds, at a low price, and not offer the seed grower enough to pay for raising. Foreign seeds, are often worthless or false to their marks. We have no doubt that some foreign seed dealers send to this country their old worthless seeds.

Last season some farmers in this vicinity sowed foreign carrot seed; and they obtained wild, worthless carrots—annual, with a very small root and a high top, and blossom the first year. The same as the wild carrot that grows in this neighborhood. It abounds in Chelsea, where there is an abundance of seed of spontaneous growth. One farmer lost 50 dollars by sowing this seed.

Cultivators should encourage the growth of good seeds by being willing to pay fair prices. Dealers should buy such seeds as are good and true, and encourage growers on whom they can rely, not abandon them because they can get seeds of a doubtful character a little cheaper elsewhere. The cultivator should hold the vender responsible for the seed he sells, and then he will be glad to buy of those whom he knows, in order to hold them responsible We need improvement in this business, and until it is made all concerned will suffer.

Now the seed grower has no encouragement, as he has to compete with the old wothless seeds in the hands of unprincipled dealers in foreign markets. The dealer here buys low; and the purchaser tries to buy as cheap as possible, as he has not sufficient confidence in the article he buys to pay a good price.

If our remarks are severe on any class or profession, all we have to offer in excuse for giving them to the public is their truth and importance.

A solution of Isinglass in weak alcohol, over a gentle heat, forms a transparent liquid glue which will unite the fractured surfaces of glass and porcelain, with great tenacity.

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Acidity in Muck.

From the Boston Cultivator.

Messrs Editors.—I noticed in your paper of last week, a communication from a correspondent of the Maine Farmer, signed J. E. R., and dated Rumford, Nov., 1847.—J. E. R. is on the subject of manure, and speaks of muck "found in the swamps, and low lands of our State." He also speaks of "newly cleared lands,"—of their abundant produce, &c., and very justly remarks, that "the substance we call muck, has precisely the same qualities, as the vegetable matter" of which "the soil" of new cleared lands is full. "But muck, (he says) in its raw state, contains a certain quality called *acidity*," and adds, that until this acidity is removed "it is unfit to furnish wholesome food for plants."

In giving his reason for the difference in the production of this "vegetable matter" of "precisely the same quality," (with the exception of the acidity, of course,) he speaks of a "powerful anti-acid, viz. an abundance of wood ashes, which, operating upon the vegetable matter, (of newly cleared lands,) corrects the quality so unfriendly to the growing crop." He then enquires—"how can this acid quality to be found in muck, be corrected in the best, cheapest, and most expeditious manner,"—and remarks,—"here is a subject which ought to engross the attention of Agricultural Societies, and farmers generally."

I admire the spirit, which dictates the communication of J. E. R., for it is really true, that "manure must be the sinew of profitable farming, which must constitute the only solid foundation of prosperity." And now as to this *acidity*. I have on my own farm a large amount of muck and for several years past, have been using it extensively in various forms as a manure.—When taken from its bed in a raw state, and directly applied to land, I have found it comparatively worthless, and for the reason I suppose, that this *acidity*, is destructive to the life and growth of vegetable plants. My present manner of using it, is, after a full exposure to frost and light—and here I believe is *the* answer to the inquiry of J. E. R. Let the muck, to be used the next season, for instance, be thrown up the last fall, and left in heaps no larger than will be well frozen. The next spring the *acidity* will be among the "things that were," and you have a finely pulverised material, of purely decomposed vegetable matter.

This is "the best, cheapest, and most expeditious manner" of removing the *acidity* from muck. As a dressing on grass land, its relative value to good barn-yard manure, is full 25 per cent. To be used in the hill for corn, potatoes, &c., I believe its value is 50 per cent. To be mixed broad cast with earthy matters, it forms in combination the common mould, and I think is worth 50 per cent. In my opinion therefore J. E. R., has well said—"it may be still a question, whether our farmers are fully aware of the value of this *precious* material." P. K. D.

Chester, Mass., 11th Jan., 1847.

From the Boston Cultivator.

Lime for Peach Trees.

Messrs. Editors:—On a visit to the farm of Mr. Daniel Dager, Spring Mill, Montgomery county, Pa., I saw the most healthy orchards of Peach trees, amounting to many hundreds, that I know of. The branches were very strong and of short growth, covered with foliage of the darkest hue, while the bark is remarkable clean and thin, more like that of a young and thrifty cherry tree than any thing else. The Proprietor attributes all this, to removing the earth from around the trees a year ago, and putting into the opening, two shovels full of hot Lime from the kiln, leaving it there to slake and boil up during the winter; after which it was, in most cases spread abroad, the earth being returned into the holes. This, however, was not uniformly done, and as proof the earth around the finest tree, was removed, when the lime in large quantity was brought to the surface, as clean as it had been taken from the kiln. It was intended again to repeat the dose, allowing it to remain exposed to the atmosphere during the winter, What the result of this double dressing will be, I am curious to know; hitherto nothing but good has resulted, from measures that may, indeed, be considered severe. Mr. Dager is convinced that the good already done, has resulted from the purity of the Lime; the marble from which it was burnt, showing not a trace of magnesia, and only 4 per cent of heterogeneous matter.

There is on his large Lime-burning establishment, a Button wood tree that has never suffered by the general disease. He attributes this *phenomenon* to the fact, that about two hundred bushels of Lime had been deposited around the trunk of this tree, where it remained for a very considerable time before it was removed; the earth still showing strong marks of its remains on the surface.

On inquiring if the lime was right hot from the kiln, and not air slacked. Mr. D. replied, "right hot and unslacked, boiling up and rising about a foot in height around each tree." It may be well to add, the land on which these peach trees are planted, was first subsoiled to a considerable depth; the lime must, therefore, have found its way to the extent of the deep stirring, and the benefit may in part arise from this circumstance. At all events, I know not an orchard of the same extent, that can at all compare with this, for beauty of foliage, strength of growth, or delicate appearence of the bark. How far the quality of the fruit may correspond to present appearences, another year will show.

Bucks Co., Pa. 1, 1847. P.

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Does Freezing injure the Soil.—It is often suggested by farmers that the soil is injured by hard freezing, and that this is a reason for wishing it to be covered well with snow, as snow is known to protect it and to prevent its being frozen very hard.

But we cannot assent to this theory; we have never seen any evidence to prove that soil which escapes freezing is better than soil that has been frozen deep through the winter.

On the contrary we incline to think that hard freezing is quite useful to grass fields, if to no others. All know that grass fields, need to be stirred up once in a few years, or they become tight bound and yield but half a crop. In the operation of freezing and thawing every particle may be supposed to be loosened and to change position. Thus we see the grass more ready to start in the spring of the year than in the fall, when the temperature is the same; a subterranean harrowing has taken place and new life is imparted by a change of the particles.

Those of our readers who are better pleased with facts than with theories are invited to inquire whether lands that are annually frozen are not better for grass than lands that never feel the winter frost—whether the New England States do not produce more hay, acre for acre, than the Carolinas and other countries as warm as they.

Hay has been shipped the last year from Maine to Mexico—from Bangor to Vera Cruz. And it is annually carried from our most northern States to those farthest south. The great Mississippi cannot bear enough on her waters to supply New Orleans, and States that have the longest winters and need the most hay, have to furnish that article annually to southren cities.

Thus we may see how Providence takes care of all. Cold weather and frost are made use of to render more productive those climes that have most need of fodder through the long winters. These in addition to the hardiness which labor imparts, enable us to spare of our abundance to those who would seem to need nothing of this kind from our stores.—*Mass. Ploughman.*

Bots, Grubs, or Colic in Horses.—Louisiana Nov. 26, 1847. Sir—It is now upwards of thirty-seven years since I first saw the following recipe given for the cure of Bots, Grubs, or Colic in horses. Since that time I have tried it with great success, and have never known it to fail when administered properly, I having had in the course of the above time from fifty to one hundred horses per year under my care.

Recipe. Take from a pint to a quart of castor oil, mixing it in as much fine table salt as it will take; bleed the horse in the rough of the mouth, and when bleeding freely pour the above down, blood and all.

A Lousiana Observer.

[N. Y. Spirit of the Times.]

N. Y. State Fair at Buffalo.—The Buffalo Commercial says: "It has been decided by the State Agricultural Society that the next annual Fair shall be held here. The magnitude of the exhibitions is well known to those who have attended them in previous years. We presume that a list of premiums has been instituted in which stock and implements from the western States and Canada will be allowed to compete. Such at least was the unanimous wish of the representatives from this part of the State; and its manifest policy, as a measure calculated to increase the attractiveness of the exhibition, cannot be disputed."

The Humanizing Influence of Cleanliness.—A neat, clean, fresh-aired, sweet, cheerful, well-arranged, and well-situated house, exercises a moral as well as a physical influence over its inmates, and makes the members of a family peaceable and considerate of the feelings, and happiness of each other; the connection is obvious between the state of mind thus produced and habits of respect for others and for those higher duties and obligations which no law can enforce. On the contrary, a filthy, squalid, noxious dwelling, rendered still more wretched by its noisome site, and in which none of the decencies of life can be observed, contributes to make its unfortunate inhabitants selfish, sensual and regardless of the feelings of each other; the constant indulgence of such passions renders them reckless and brutal, and the transition is natural to propensities and habits incompatible with a respect for the property of others or for the laws.

Good and Bad Farming.

The following is an extract from an address of A. W. Dodge, Esq., delivered before the Barnstable Agricultural Society of the State of Maine.

Look at the contrast between a good farmer and a bad farmer—between a neat thrifty cultivator of the soil, and a slack and slovenish aggravator of it. The buildings of the one, whether large or small, are all in good repair. The premises about them are clean and unincumbered by piles of rubbish and brush. His wood is cut and placed under cover in proper season. His tillage and mowing fields are clean of weeds bushes, and stones. His fences have no unsighty gaps. His fruit trees are well trimmed and cultivated, and are kept freed from cattle and catterpillars. His barn-yard or barn cellar evinces the high value he places on manure, by the care he bestows on making and saving it, and his lands from year to year, show that they experience the full benefit of a right application of it. He is at work, boys and all, before the sun. While he finds time for the discharge of his political and other public duties, he spends little or none of it by the wayside, in discussing the affairs of the nation or the gossip of the village.

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He takes a newspaper to tell him how the government and the world jog on, and an agricultural paper to give him an idea of the improvements to be made in his agricultural occupation.

The buildings and premises of the other exhibit many a symptom of neglect and premature decay. A barn door, perhaps, for the loss of hinges, propped up by rails or stakes. The frame work of a shed is all that remains of what was once a shelter for his stock. Brushwood and trunks of trees lie in fantastic confusion about his doors, whilst the skeletons of departed carts, and wheels, and sleds, and plows, line the roadside for a considerable distance, as you approach his dwelling. His fences are so enveloped in bushes, as to be almost imperceptible. His barn-yard is washed and drained by a convenient declivity leading either to the roadside or a neighboring stream. His tillage land is impoverished by repeated croppings and a stinted allowance of food. Thistles, johnswort and mullen, hold title to his mowing fields by right of uninterrupted occupation. He rises not before the sun tells him it is day. He is generally behind hand in work. His crops suffer for the want of due care and harvesting. He carries to market an inferior article, gets an inferior price and then complains to every body he meets of hard times, and the hard life a farmer has to lead. Of course, he is quite ready to lay the blame on any shoulders but his own, and the government, either state or national, has very often to bear no small share of it.

On making Maple Sugar.—The season of sugar making is close at hand; and there is much room for improvement in this as well as most other operations of the farmer. With the hope that some of our readers will be induced to attempt such improvement, and thereby make a better article of sugar than they have done before, we copy from the transactions of the N. Y. State Agricultural Society of last year, the following report of a committee on sugar, and the statement of one of the competitors to whom premiums were awarded, giving their modes of manufacturing the premium sugar.—*Ohio Cult.*

MR. EAMES' STATEMENT.

Rutland

First the plan and manner of tapping the trees in this town is very nearly the same; that is, with a half-inch or five-eights auger, and a spile inserted in the hole, and a pine tub to catch the sap from each tree. I gather my sap to one large reservoir once in 24 hours; then it is boiled each day to syrup, which is about half the sweetness of molasses; it is then taken out and strained through a flannel cloth, and put into a tub or barrel to cool and settle for 12 hours. I use a sheet iron pan set in an arch of brick; the pan is made of Russia iron, eight feet long, four feet wide, and six inches deep. It is then taken out, and I am careful not to move the bottom where it has settled, and place it in a kettle and heat to 68 degrees. I then add (for 100 pounds) the whites of four eggs, two quarts of milk, and one ounce of saleratus, (the eggs well beat up, and the saleratus well dissolved,) and stir the whole well together in the syrup; and when the scum has all risen, it is to be taken off and be sure it does not boil before you have done skimming it. Then it is boiled until it is done, which you will know by dropping some into water; which, if done, will form a wax. It then must be taken from the kettle, and placed in tin pans to cool and form the grain; and as soon as the grain is suficiently formed, I then pour it into tunnel-shaped boxes to drain, and after 24 hours I place a flannel cloth on the top, and take the plug from the bottom, and let it drain. The flannel cloth I keep wet from day to day.

MOSES EAMES.

Lampas.—It is most common in young horses, while they are shedding their teeth; and it is supposed to arise, frequently from inflamation of the gums, which spreads to the bars across the roof of the mouth, causing them to swell, sometimes beyond the level of the teeth, and preventing the horse from masticating his food. The pressure of substances taken into the mouth on the inflamed or sore bars, occasions the horse pain, and he may refuse to eat any hard food. In ordinary cases, some laxative medicines will carry off inflamation, and relieve the animal.—It may, however, be expedient to lance the bars that are most swollen, which, causing a slight flow of blood, will soon reduce the fever and brings the parts to their natural condition. The practice of burning out the bars with a hot iron, is unnecessary and cruel.—*Albany Cultivator.*

"Gatling's Wheat Drilling Machine."—Mr. S. T. Taylor, agent for the patentee of this machine, has contributed largely to the interest of the Farmers of Indiana by the introduction of this machine into this State. The drill system is one that we trust ere long will be generally resorted to by our farmers for the cultivation of most of their crops, where the land is adapted to it. From certificates and from the evidence of all who have tried it or seen it tried, we can not doubt but that drilling wheat will increase the product per acre one fourth in proportion to the seed sown.

Gatling's Machine is the most simple one and best adapted to the means of our farmers of any thing of the kind yet invented. It will sell at from $20 to $30, and in a crop of one hundred bushels sowing, the farmer will save enough seed to pay for the implement.

Receipts.—For drunkenness, drink cold water; for health, rise early; to be happy, be honest; to please all, mind your own business.

MICHIGAN FARMER.

WARREN ISHAM, EDITOR.

PUBLISHED SEMI-MONTHLY—TERMS $1 IN ADVANCE—FIVE COPIES FOR $4.

Agricultural Science.

PROCESS OF VEGETABLE NUTRITION—IMPORTANT INFERENCES.

The process of vegetable nutrition is a very simple one, so far as the general laws which regulate it, are concerned. Who is not familiar with that simple law of nature, by which water is made to dissolve potash, soda, lime, magnesia, &c.? Very well, let it be granted then, that water is water, whether it is collected in a cistern, or moistens the earth, and that potash is potash, whether it is purchased at a drug shop, or constitutes a minute proportion of the soil, and let the same thing be granted of soda, lime, magnesia, and every other mineral ingredient which enters into the composition of a plant, and it is all we ask.

And who is so ignorant as to know nothing of that other simple law of nature, by which a sponge becomes saturated with water by simply bringing its under surface in contact with that element? Well, just as the water ascends through all the pores of a sponge which only just touches its surface, the water in the soil, with the salts which it holds in solution, is sponged up by the roots of vegetables, and ascends through the pores, until it has traversed the main trunk, and spread itself throughout all the branches, and coursed its way through every twig, and arrived with its burden at its destination in the leaves, without the slightest change having been effected in the long journey. But it is now in nature's laboratory, where the work of assimilation is carried on. The water is evaporated from the leaves, leaving whatever it held in solution behind, at the same time that carbonic acid is absorbed from the atmosphere. Through the action of light, the oxygen of the carbonic acid and of the salts, is set free and expelled. Decomposition and recombination goes on, according to fixed laws, until the ingredients thus collected, have been brought into a fit state of assimilation to become constituent parts of the growing plant. Thus prepared, the resulting compound takes its way back, through another route, depositing itself, as it goes along, in the fruit, in the interstices of every branch, of the main trunk, and of the spreading roots, in their countless ramifications, to be incorporated with them as a component part. Should any ingredient, not adapted to the nutrition of that particular plant, have been held in solution by the water which was taken up by the roots, or should any ingredient necessary to its nutrition, have been taken up in excess, such useless ingredient and such excess of the needful one, after having been carried up, and all that is needed for nutrition separated from them, are cast out as excrements through the leaves, the bark and the roots.

That portion of the excrements, which was cast out as not being adapted to the nutrition of that particular plant, may consist of the very ingredients which a plant of another description would require for its nutrition. Hence the advantage arising from a judicious rotation of crops.

Another important inference deducible from the above, is, that the removal of the leaves of a plant must be greatly injurious, as its entire growth, and the maturing of its fruit, depend on the functions they perform. In confirmation of this, it has been proved by experiment, that the common practice of topping cornstalks as soon as the corn has begun to glaze, subtracts more in value from the yield of corn, than is gained in fodder.

The practice too, of pruning away a large proportion of the tops of fruit trees, as many are in the habit of doing, cannot be otherwise than greatly injurious, upon the same principle. There is little danger of there being too many leaves to carry on the great work of assimilation. Facts have shown, that there is quite as much danger to be apprehended from a redundance of the roots, by which means superfluous mineral ingredients are taken up, to such a degree, as to disturb the assimilating process in the leaves, and thus prevent the formation of fruit.

It is by no means uncommon to see the entire tops of young fruit trees removed for the purpose of grafting. If the tree survives such a wholesale decapitation, no thanks to the murderous hand that was lifted against it. The blow was not quite sufficient to overcome and destroy the persevering efforts of nature.

Do you ask, how it is possible that a tree can survive at all, under such circumstances, if it be

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true, that the leaves perform a part so vitally important in the vegetable economy? We answer, that the pores of the trunk are already filled with juices which have been elaborated in the leaves, and, under favorable circumstances, these juices may be made available in the formation of new shoots, which, of course, will put forth leaves, and these few leaves can recommence, on a small scale, the work of assimilation. But the experiment cannot be otherwise than hazardous.

Once more: it has been thought, that we may hence learn the reason why a graft produces fruit of its own kind, and not of the kind peculiar to the stock into which it is inserted. As its own leaves perform the work of assimilation, it would be natural to conclude, that they would so perform it, as to produce fruit of their own kind, whereas, if the nourishment came from the roots, it would be equally natural to conclude that the reverse would be the fact.

In the above brief, we have not pretended to enumerate all the ingredients which enter into the composition of a plant, our object being simply to give a general idea of the laws by which the process of nutrition is carried on. Nor is this mere speculation, unsustained by facts.—Every stage of the process we have detailed, has been shown to be real, by repeated experiments; an account of which we have omitted for the sake of brevity.

Ashes on Corn.

Mr. Wm. Van Dusen, of Western New York, applied unleached ashes to a portion of a field of corn, in the hill, at the rate of 3½ bushels to the acre. The result was, that the difference between the ashed and unashed part, was clearly visible at the distance of sixty rods. And upon harvesting it the ashed part yielded 23 bushels of ears per acre more than the part unashed, making an aggregate gain of 115 bushels on the five acres ashed. He thinks he had one fourth more fodder from the ashed part, than from the unashed. The gain in fodder paid for the ashes and the cost of applying them. The land was light—a sandy loam.

In reference to this result, Dr. Lee, in his Southern Cultivator, remarks, that he has seen a still greater gain from similar applications.—The Dr. further remarks, that the corn, cobs, stalks and leaves, from an acre, would not yield more than a half bushel of ashes, when burnt.—But Mr. Van Dusen applied seven half bushels to the acre. Only one half bushel of the seven then, being dissolved, entered the circulation of the plants, and supplied those alkaline earths; without which other matters could not possibly be organized, in this bread producing vegetable.

He adds, that all the organized matter, which made the whole gain in the crop,—23 bushels of ears, and a like gain in the stalks and blades, existed within reach of the corn plants, as well before, as after the ashes were applied. Providence supplied, in earth, air, and water, full 95 parts in a hundred, of the elements, which combined to make the addition to the crop, the ashes yielding less than 5 per cent.

In conclusion, he says, we put the question to practical men, whether, in truth, there is any thing more mysterious in making a hill of fat corn—an average of two good ears on every stalk—by feeding the living plants just what they need, than there is in making two fat pigs in one pen, by giving them a plenty of good food during their whole life time. Upon a pinch, a hungry pig can trot round over a hundred acres to find his breakfast, but, alas, no famishiug cornstalk can travel a rod to get the materials which make the solid bones of all animals that feed on corn.

Premium Farm.

PROFIT ON POTATOES.

It appears, that the premium was recently awarded to the farm of Gov. Hill near Concord, N. H. as being the best in the county. The aggregate value of the produce of it the past year is estimated at $2,619 00. Of this farm Gov. H. says, in the Monthly Visitor, (an agricultural paper of which he is editor,) that twelve years ago when he purchased it, the whole income of it was not worth one hundred dollars a year. From ten acres he took off a crop of 1,200 bushels of potatoes, which were worth $600 00. The expense of raising them, including seed, manure, labor, &c., amounted to $312 50, leaving a balance of $338 50, or a net profit of about $34 00 to the acre. Of this ten acres he says, that it is pine plain land, is isolated from the rest of the farm, and five years ago, cost him only $100 00. He says that he would now refuse $750 00 for it, and that he has never expended a dollar upon the ground, which the crop of the year did not pay for.

He adds, that there is no symptom of rot in

the whole ten acre product. He attributes his success to early planting, and to the action of compost, guano, and plaster upon the deepened soil. He makes use of the subsoil plow.

Lime in Subsoils.—The results of a recent analysis of the soil of the river bottom near Augurta, Geo. by Dr. Lee, of the Southern Cuitivator, shows the great tendency of lime to sink into the subsoil, there being found by this analysis to be three times as much lime in the subsoil at the depth of twelve inches, as there was in the surface soil.

The Southern Cultivator.—The January No. of the Southern Cultivator, published at Augusta, Geo. comes to us richly laden—edited by Daniel Lee, M. D. late editor of the Genesee Farmer. The Dr. says he is there analyzing the river bottoms.

Plain Talk.—Dr. Lee is trying to beat some rational ideas into the heads of his new patrons at the South about cropping. He rebukes them most unmercifully for placing their whole dependence on a single staple, and running their lands out by a constant succession of crops, without returning to the soil its exhausted properties. He prescribes to them a system of husbandry, and tells them that their "once barren and worn out soil, will soon astonish those who merely squat on new lands to skin, desolate and run away from them to repeat the operation elsewhere. The latter system strikes us, he adds, as an outrage on civilization, cultivated reason, and the goodness of Providence."

Increased demand for Wool.—There are at this time, in course of erection, woolen factories in the New England States, sufficient to consume 10,000,000 lbs. of wool annually. The operation of the new tariff, imposing a duty of 30 per cent on coarse South American wools, instead of the 5 per cent duty heretofore imposed, it is thought, will create a demand for 10,000,000 lbs. more, making an aggregate increased demand for 20,000,000 lbs., to supply which, will require more than seven millions additional sheep, leaving out of the account the great number of mills erecting in various other parts of the Union, a single one of which, (at Utica, N. Y.) will consume half a million of pounds annually. The prospects of the wool-grower are certainly encouraging. So long as spindles increase faster than sheep, there will be no lack of remunerating prices for wool.

For the Michigan Farmer.

Striped Bugs.

Mr. Editor:—Of all the destructive insects which infest horticultural vegetables, these are "the cap-sheaf." Always full of mischief, and therefore always unwelcome; they are sure to make their perplexing visits when we are the least prepared and the most unwilling to receive them. Having no regard for the rights, interests, or feelings of the gardener, and subscribing to no law except that "might makes right," they suffer themselves to be satisfied with nothing short of "the lion's share." Nor do they always or even generally so conduct their ruinous depredations as to remove the *presumption* that they were "moved and seduced by the instigations of the d——l," and did therefore commit the wrongs of which they are guilty "of malice aforethought." So far from it, they bite here, and there, and every where, without regard either to wisdom or economy. Being, in their season, always on the alert, and highly pleased with "something new," hardly a plant, great or small, high or low, young or old, escapes either their observation or *marked* attention. In accomplishing the purposes which they have in view, their perseverance *seems* to be only equalled by their obstinacy. The dusting of plants for which they have a *tooth*, with lime, ashes, plaster, sulphur, &c. &c. has but little or no effect, unless it be that of destroying "the sarce" and exciting their risibles. Hence it is no wonder that the question is frequently and seriously asked and re-asked, not "what we shall do to be *saved*," but to *save* our plants? An old Genesee farmer recommends the use of *suds* made of whaleoil soap—to be prepared by mixing one quart of soap with one gallon of water, and applied by "sprinkling" the plants at night and in the morning. Although this method, for aught I know, may be an effectual one, still I fear that a knowledge of it to the most of us, would be of but little utility. Another method, which I have known to be highly recommended, is that of a like application of strong liquid manure. But it seems to me that unless the olfactories of these little *imps* are more delicate than I think they are, but very little good can grow out of it. Be this as it may, a trial of it would do no harm; but, on the contrary,—and the

same is true of the one first mentioned,—the thrift and health of the plant would be thereby much benefitted. There is still another method which I have also heard recommended, and which no doubt will do much towards arresting the mischief of these little *varmints*, as well as that of some others. It is to enclose the plants in a bottomless box, with the lower edges lightly pressed into the earth, and the sides about six inches wide. Of the method "above mentioned and described," I could say but little from observation. There are two methods, however, which *I* have frequently tried, and can therefore speak of them with confidence. The first which I shall mention is a very simple, cheap method, which all have the means of trying, when occasion calls for the use of any, and which has never failed of producing, to some considerable extent, good and beneficial results. These little scamps, being very coy of, and uncontrolably disposed to give "leg bail," or wing bail, to all things that have much motion, may therefore be "kept at bay" by suspending over the plants to be protected, a strip of white paper one inch wide and three or four long, with a short thread and a considerably curved stick, in such a manner as will cause it to be whirled about by every breath of wind. This method, if persevered in, as is above intimated, will do much. The second and last one which *I* shall mention, and which I sometimes try, and never without some success, is to catch and unceremoniously lynch them on the spot. I have never known one that I have so treated, to return. If they be lynched, I care not if nothing more is done than to extract their teeth, I will warrant they will ever after keep away and mind their own business.

January 8, 1848. OTISCO.

For the Michigan Farmer.

Potatoes, &c.

A subscriber to the Farmer in Berrien Co., in a letter to the Editor, writes as follows:

I have had excellent crops of potatoes for many years. My plan has been, never to plant a potato that was defective in any way, neither hollow ones, nor those that have a black core in them. I take potatoes of good size for table use, and cut them in two parts lengthwise, and roll them in lime, and put one piece in a hill, in mellow sandy soil. The yield has not been large, but from one to two hundred bushels per acre. The kind that I raise at present, is what I call the Blue Neshannock, the outside blue, inside white with streaks of red. The rot has destroyed quite a share of the potato crop in this section.

I wish to make an inquiry of you as to the cause of, and the remedy for, the blight in melons. I have been very successful in raising melons till the last year, ever since I have been in the State. My vines grew very thrifty until they were in blossom, and some of the melons were one-third grown, and then, in the course of a few days, the vines turned black and died—The land sandy and had been cropped four years. This is the only kind of blight that has ever troubled my vines. For the finger blight the remedy I have adopted has been to be liberal.

[Will some of our correspondents take it upon themselves to reply to the above inquiry.—Should no one do so, we may venture an opinion.—Ed.]

Letter from a Mechanic.

348 *pounds of Pumpkins raised from one seed.*

Waterloo, February 8th, 1848.

Friend Isham,—Enclosed is the subscription price of your valuable paper. It is a neat little paper and I would not do without it at any rate.

And now, as the Farmer is calculated to be for information, I wish to make an inquiry of your subscribers, whether any of them know of a receipt for making red chalk for using on a line, as I work at the mechanical business, and find that white chalk makes a very poor mark.

Sometimes I raise a few pumpkins, of which I will give you a specimen. I raised from *one seed* the following weight of pumpkins, to wit:

One weighing 35 pounds; one 27 pounds; one 26 pounds; two of 24 lbs. each; four of 23 lbs. each; one 22 lbs; two of 20 lbs. each; two of 19 lbs. each; two of 10 lbs. each, making 348 lbs. from one seed.

Some of them weighed a fraction over, which I have not stated, neither do I brag of their size so very much to the single pumpkin, but if any of your readers have done better, I hope they will set it forth in the Farmer. Yours,

CYRIL ADAMS.

The Hessian Fly in Ohio.—The Editor of the Ohio Cultivator in copying into his paper, from the Michigan Farmer, the editorial article on "The Hessian Fly," published in our first number, as a reason for doing so, says: In examining the reports made to the Ohio State Board of Agriculture, we find from almost every county, complaint is made of the injury done to the wheat crop last year by the Hessian Fly. Many of the counties also state that the crop now on the ground, suffered severely from this cause the past fall. This evil is of such magnitude, and affects so vitally one of the staple products of our Western farmers, that it is a subject of the greatest interest among a large portion of our readers; and we shall not fail to give all the information respecting it in our power.

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☞ The author of the following communication is a farmer, and he shows himself to be master of his profession. In the hands of such men agriculture is redeemed from the odium which has been brought upon it by those who have been content to drudge along in the dull routine of their daily toil, in as total ignorance of the principles upon which the results of their labor depended, as the stupid ox by their side. How exalted does the pursuit of agriculture become in the one case, and how grovelling in the other. And yet, the more ignorant and stupid this latter class of farmers are, the more conceited and self-confident they become. A generation or two hence, however, will witness a different state of things.

For the Michigan Farmer.

Mr. Editor,—The great desire of every farmer is naturally to produce the largest amount of grain at the least expense; and in a new State, such as is ours, where labor is both scarce and expensive, every thing which can add to the amount of a crop without increased manual labor, is of course an advantage. It is apparent to all, that as the crop on an acre of land increases, so in proportion does the profit on every bushel prepared for market increase. If it costs ten dollars to cultivate an acre of corn, and this acre yields only 40 bushels of marketable grain, a fair average in the part of the country where I reside, then only five dollars are left to pay interest, profit, risk, and other charges. But if, at a cost of twelve dollars, the same acre can be made to produce 100 bushels of shelled corn, and this was done a few years ago by Mr. Comstock of Raisin, in this State, then nearly twenty-six dollars are left for profit and other charges, or in proportion to the cost,—but a large crop will always pay better for a more costly mode of farming, than a small one for a cheap and slovenly mode. Now, there are two modes in which a crop may be increased. The one by more thoroughly working the land, pulverizing it, admitting the air, draining, and weeding; the other by the use of manure. Both plans act on the same principle,—that is, by providing more food for the growing plant; and a *thoroughly good* farmer, where labor is cheap, unites both plans. But where labor is dear, the latter must be resorted to. Barnyard manure, where the cattle are fed on better food than straw, and it is well preserved from rain, and leaching, unites in itself nearly all a plant requires: but very few can produce sufficient barnyard manure for a large farm, our barns are rarely provided with proper means for saving it, and the hauling and spreading are not without considerable expense. To remedy this, in Europe, many plans are resorted to. Bone dust, rape cake, foddering turnips on the field in moveable pens, light and portable composts, are all used with great saving and advantage; while in Belgium, tanks are dug in the fields for the saving of liquid manure till it is required on the spot. Few or none of these modes, however, are adapted for our country.

But the great chemists of the day have clearly shown that a field may be manured by putting to the root of the plant a small portion of the mineral ingredients required in its composition, or where seed is sown broadcast, by a slight top dressing of the same. Thus, in England, a turnip was grown to perfection in no other soil, than the ashes of other turnips, put into a wooden box; and in lands deficient in common salt, three bushels to the acre have produced an extraordinary change of growth. But it is chiefly in the corn crops that, with us, this principle can be most cheaply and usefully employed.—The effect of soaking the seed in a solution of saltpetre, is immediately visible; the soaking of corn and barley in a solution of the sulphate or nitrate of ammonia, which costs only a few cents to the bushel, is still more extraordinary; while, if a mixture of the mineral ingredients, found by analysis to enter into corn, be placed in a hill at the time of planting, say a teaspoonful to each hill, the effect is continued through the whole season. It is not intended to maintain, that corn without labor will do well; but with the ordinary labor bestowed to keep it clean, such manuring will add wonderfully to the produce. Now, corn contains potash, soda, lime, magnesia, alumina, oxide of iron, silica, sulphuric acid, phosphoric acid, chlorine. The chief ingredients which we add are the two first and phosphoric acid; and they are all contained in common wood ashes. Let our enterprising farmers then try ashes, unslacked lime, epsom salts, plaster, and common salt—not laying the seed *on* them, but with a thin covering of earth between, having first soaked in ammonia,—and we are sure they will repeat it the next season. The proportions—450 parts ashes, 50 lime, 128 epsom salts, 17 plaster, 20 common salt—will probably do.

For the Michigan Farmer.

Detroit Horticultural Society.

A special meeting of the Society was held January 26, 1848. Letters were read from H. C. Knight, Esq., and B. G. Barker, Esq.; also, a report from Judge Barker of his visit to the Fair of the American Institute, N. Y.; and of the presentation by him of a barrel of Michigan Apples in the name of this Society.

On motion, the thanks of this Society were unanimously voted to Judge Barker for his commendable zeal for the interests of this Society.

On motion, the Treasurer of the Society was directed to purchase "Downings Fruits and Fruit Trees of America," new edition, with colored plates.

The President was appointed the Librarian of the Society.

The Secretary read from Downing's Horticulturist of Dec. 1847, "Rules of American Pomology"—being rules for correctly naming, describing, and introducing new varieties of fruits.

On motion of Chas. Hastings, Esq., the rules of American Pomology were adopted by this Society.

Chas. Hastings, Esq., presented the Society with specimens of White Belle Fleur, Swaar, Westfield Seek-no-further, Sweet Pearmain, Detroit Red, Baldwin, Holland Pippin, Steele's Red Winter, and Tallman Sweeting, and Romanite apples. After testing the quality of the same, the Society adjourned.

T. H. HINCHMAN, *Sec'y.*

Accompanying the above was a request that we would publish the following rules of American Pomology.

The Rules of American Pomology.

I. No new seedling fruit shall be entitled to a name or to pomological recommendation, which is not at least equal if not superior to any similar varieties of the first rank already known; or which, if only of second rate flavor, is so decidedly superior in vigor, hardiness, or productiveness, to varieties of the same character already known, as to render it well worthy of cultivation.

II. The originator, first grower, or he who first makes known a new variety of merit, shall be entitled to suggest a name for such variety, which name, if a suitable one, (i. e. coming within the rules of nomenclature,) shall be adopted by the writer describing the fruit for the first time. But if the name proposed is inappropriate, or does not come within the rules, then the describer shall be at liberty to give a name.

III. No new native fruit shall be considered as named until the same has been accurately described, in pomological terms, by some competent person conversant with existing varieties, some pomologist of reputation, or the standing fruit committee of some established Horticultural Society.

IV. The description shall embrace the following particulars: 1st. The form and exterior color, the texture and color of the flesh, and the flavor of the fruit, with the addition in stone fruits, of the size of the stone, adherence or non-adherence of the flesh, form of suture, and the hollow at the stem; and in kernel fruits, of the size of the core and seeds, the length, position and insertion of the stalk, and form of the eye. In peaches the form of the leaf glands and size of blossoms; in grapes, the form of the bunches; and in strawberries, the character of the blossoms, whether staminate or pistillate; and also where there is any marked character in the foliage, growth of the young wood, or bearing tree, the same shall be given.

V. The name of the new variety shall not be considered as established until the description shall have been published in at least one horticultural or one agricultural journal, having the largest circulation in the country, or some pomological work of large circulation and acknowledged standard character.

VI. In giving names to newly originated varieties, all harsh, vulgar, or inelegant names shall be avoided, such as "Sheepnose," "Hog-pen," &c.

VII. No new names shall be given, which consist of more than two words, excepting only when the originator's name is added.

[Thus all unnecessarily long titles, such as "New Large Black Bigarreau," "Beurre gris d'hiver nouveau," will be avoided.]

VIII. Characteristic names, or those in some way descriptive of the qualities, origin, or habit of fruit or tree, shall be preferred.

IX. All superfluous terms shall be avoided.

X. Before giving a name to a new fruit, its qualities should be decided by at least two seasons' experience; and no new fruit can be safely recommended for general cultivation, until the same has been tested and found valuable in more than one locality.

XI. When two persons have named or described a new native fruit, then the name and description first published, if according to the rules herein indicated, shall have the priority.

XII. No person introducing new fruits from abroad, shall be allowed to rechristen the same, or give them his own name.

XIII. In deciding the names of fruits already described, the latest edition of the "Catalogue of the London Horticultural Society" shall be considered the standard European authority, and the latest edition of Downing's "Fruits and Fruit Trees of America," the standard American authority.

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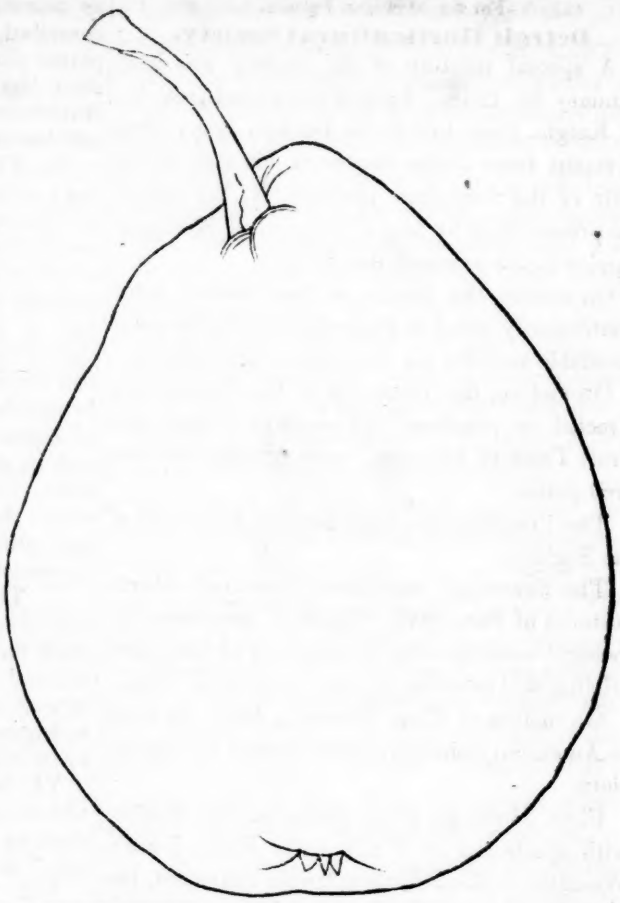
Swan's Orange Pear.—This pear is of recent introduction. The tree is described in our standard horticultural publications, as being very hardy and vigorous, unsurpassed in beauty, and unequalled in the excellence of its fruit, it having been denominated by some, "the best pear in the world."—Some specimens from Rochester, N. Y. measured twelve inches in circumference, and weighed thirteen ounces.

Fruit. Skin, very fair, smooth, greenish yellow, but becoming of bright yellow when mature, leaving a few traces of green, smoothly russeted around the eye, faintly tinged with blush on the sunny side, and regularly covered with large, round, russet specks. Flesh, white, fine, very melting, buttery and juicy. Flavor rich, sugary, sprightly, vinous and delicious, with a most agreeable and high perfume.

We learn that the above choice variety may be obtained at the nursery of Messrs. Hastings & Holmes, one mile west of this city.



Camphor (not tobacco) will repel moths. Flannels well wrapped in linen are safe from moths. But they should be well brushed about the first day of summer.

The Loading Rake.—We learn from one of our exchanges that a gentleman in the city of Philadelphia has recently invented, and obtained a patent for a new agricultural implement, which promises to contribute very materially to the abridgement of labor in farming. The machine is called the "Loading Rake." It consists of one or two rakes, similar to the common horse rake, attached to the wagon; which, instead of being inverted and leaving their load on the ground, are raised by the onward movement of the team, and deposite their contents in the wagon. By this process, as the hay is taken from the swath, the labor of six or eight men, which is usually required in raking, cocking and loading, is readily performed by two men and one boy, in three-fourths of the ordinary time. With the force above stated, three-quarters of an acre can be taken up on a fair average, every half hour. The rake can be adjusted, with some slight alterations, to the ordinary wagon, and can be detached at pleasure. The cost will be such as to place it within the reach of every farmer who is accustomed to use the common horse rake.

Bees—Winter Killing of, &c.—The fine weather, just passed, tempted us to pay a visit to our friend Mr. Alldridge, whose nursery of fruit trees, grapes, evergreens, &c. is so well worthy of a visit. Among the matters which attracted our attention, was his hives of Bees; and upon seeing many of these useful and industrious insects lying dead, we inquired the reason.

They had been killed on the night of the 9th of January, when the thermometer fell to 17 degrees below zero. The hives had not been covered, and the greatest destruction was in the *patent hives.* These *divide* the bees into small lots, and, consequently, the heat of the mass was not sufficient to sustain life. This is an objection, in our climate, fatal to the use of these hives, unless some other mode should be adopted of keeping them over winter, than that generally in use.—*Indiana Farmer and Gardener.*

Flowers.—Reader, did you ever know a lady who was fond of flowers and cultivated them who was a shrew, and made herself disagreeable to all her friends by her ill temper? We never did.

Did you ever know a lady who cultivated flowers who was a slattern, and kept her house in dirt and disorder. We never did.

Did you ever know a lady who cultivated flowers who was not in a good degree amiable? We never did.

GENERAL INTELLIGENCE.

From Mexico.—The commander-in-chief is to submit to the court of inquiry to be held at Perote, for the trial of Pillow and Duncan, and to decide on the appeal of General Worth. The charges are said to be, want of respect to the Secretary of War, and remissness in communicating with that Department. Following up this, is a rumor, that orders have been despatched to General Butler to arrest and send home Nicholas P. Trist, the peace commissioner, and another rumor, which wears some aspects of credibility, that the Mexican authorities have made overtures for peace, on the terms originally drawn up by Trist, and that, in the absence of authority there to act upon them, despatches to this effect have been forwarded to Washington. There have been some military sallies of late, in one of which Generals Arista and Valencia were taken prisoners, both of whom were released on parole. In another expedition, Generals Torrejon and Minon were taken prisoners. The celebrated guerilla chief, Jarauta, (a Catholic priest,) is thought to have been killed, or desperately wounded. Three American soldiers have been hung, one for mutiny, and the other two for murder. Much is said about a proposition of Col. Carasco, a Mexican officer, to open negotiations for the annexation of several of the conquered provinces to the United States. Commodore Ridgeley, commanding on the west coast of Mexico, is reported to be dead. Santa Anna is said to be surrounded by a large number of officers, and it is thought he will again be hoisted into power. A band of 500 Mexican rangers recently attacked Laparre and San Jose in California, defeated the Americans and burned the houses, the latter retreating to the coast to seek protection from the vessels of war.

Congress.—The ten regiment bill still lingers in the House, and it is thought will be defeated. Mr. Rhett, of South Carolina, in defending the President, took the ground that he was, constitutionally, the war-making power, contending, however, that the war against Mexico was declared by Congress. Mr. Turner, of Illinois, offered a resolution annexing Upper California and New Mexico, to the United States, which was laid over. The Naval committee are instructed to inquire into the expediency of creating the office of Admiral. A resolution has been offered requesting the President to state on what authority or by what provision of the constitution, the Secretary of the Treasury had established a tariff of duties in Mexico. Mr. Hampton, a Whig Representative from Pittsburgh, has introduced resolutions which look to the annexation of all Mexico, first taking in the conquered provinces as territotories, and admitting them as states, upon their application to become such, urging in behalf of the project, the immense commercial advantages which would result to this country, and the mutual benefits from such a measure, both to this country and Mexico. In the Senate, Mr. Hunter, of Virginia, addressed the Senate against the war policy of the administration, and in favor of Mr. Calhoun's defensive line. The bill extending the provisions of the act granting half pay to widows of soldiers dying of wounds received in battle, passed.

Legislature of Michigan.—A resolution has passed the House, adverse to the extension of slave territory. A petition has been presented from W. W. Miller and 25 others, of Macomb co., for the repeal of all laws for the collection of debts. A petition has been presented from the citizens of Jackson, for the laying out of a State road from Green Bay to the Mineral region on the South shore of lake Superior. Bills for the incorporation of three new mining companies, viz: Pittsburgh, Copper Falls and Pittsburgh and Boston companies, have been introduced. Considerable debate has been had in reference to the disposition to be made of the public lands of the State, whether they shall be devoted to the payment of the public debt, or to internal improvement purposes. Mr. Pierce announced his intention to introduce a resolution to apportion them among the counties in proportion to the area of each. Mr. Kingsley reported to the House a joint resolution, proposing as an amendment to the constitution, that the word "white," as relating to the elective franchise, be stricken out.

Foreign.—No very important foreign news. Markets dull, failures continue somewhat frequent, though the money market was easier.—The British steam frigate Avenger has been lost off the North coast of Africa, 270 persons on board, all of whom are supposed to have been lost—vessel commanded by a son of Admiral Napier. The agrarian outrages continue in Ireland, extending to the North. In the South and West the distress is increasing. The famous Abd el Kader has at last surrendered to the Duc D' Aumale at Algiers. The Queen of Spain is lying dangerously ill; it is suggested that she has been poisoned. The cholera is reported to have made its appearnce in London.

☞Hon. George P. Barker, late Attorney General of the State of New York, died recently at his residence in Buffalo.

☞ It appears from a census of Buffalo recently taken, that the population of that city is 40,521.

☞ The fatal disease called Spotted Fever, Spotted Cholera, Brain Fever, and we know not what else, appears to be prevailing to an alarming extent, in Plymouth, Wayne county, carrying off its victims in a very short time.

It is thought Col. Fremont's sentence will be suspension for a short time, and that the President will remit it.

XUM

☞ We tender our thanks to our brethren of the press, who have either published our prospectus or noticed the Farmer editorially. The following wholesome advice to the farmers of Michigan, is from the Washtenaw Whig. We understand, by the way, that a very complimentary notice of the Farmer appeared also in the Ann Arbor Argus, but the paper containing it never reached us.

From the Washtenaw Whig.

THE MICHIGAN FARMER.—This valuable journal makes its regular appearance upon our table, and is always a welcome visiter. This is an ably conducted paper, devoted entirely to the interests of the farmer. Mr. Isham, its able editor, is entitled to much credit for his service in the cause of agricultural improvement, and should receive the support of the farming community freely. Our farmers would find it for their interest to support such a paper, instead of sending their money to Philadelphia, or New York, for papers filled with sickly, sentimental tales, which at best are poor apologies for usefulness.

Michigan Pigs.—There has been a wonderful improvement in Michigan pigs within the last few years. Not many years back, such a thing as thick, heavy pork, was rarely seen in our market. But it is not so now. Michigan pigs are effectually putting in their claims to consideration. We saw a number of them at Mr. Dixon's meat depot the other day, which would do honor to any market. Mr. Dixon informed us, that the heaviest he had purchased, weighed 533 lbs. This pig was 20 months old, was raise in Plymouth, Wayne Co. and was of the small boned breed, as were those which we saw, whose weight was something less. Mr. D. further informed us, that still heavier pigs had been purchased in the city during the season, and mentioned one which weighed 580 lbs.—This pig, however, was of the large boned breed.

We should have said, that the fine pigs which we saw, were from that same township of Plymouth; a township, by the way, which furnishes a longer list of subscribers to the Michigan Farmer, than any other township in the State.

☞From the proceedings of Congress under date of Tuesday, it appears conclusive that Gen. Scott has been suspended from the command of the army, and that Gen. Worth has been released from arrest. Gen. Scott will attend a court of inquiry ordered in relation to the recent difficulties.

WOOL DEPOT.—We invite attention to the advertisement, in our present number, of the Buffalo Wool Depot. We ought to have one in Detroit, but so long as there is none, we advise the farmers of Michigan to send their wool to the Buffalo Depot, where they will be sure to realize the highest market price.

BACK VOLUMES OF THE FARMER.

Volumes IV and V, neatly put up in pamphlet form, for sale at 50 cents a volume. They can be forwarded by mail or otherwise, as may be directed. Address H. Hurlbut, Detroit.

TERMS.—The MICHIGAN FARMER is published at Detroit, twice a month, by WARREN ISHAM, at one dollar a year in advance—after three months $1 25—after six months $1 50—after nine months $1 75. No subscription taken for less than one year, nor discontinued till all arrerages are paid. To clubs, five copies for four dollars.

Office, on King's corner, third story.

Market Intelligence.

DETROIT PRICE CURRENT.

Flour, bbl.	$4 75a$		Salt,	$1 75 a$	
Corn, bus.	37½a	40	Butter,	12 a	14
Oats,	22 a	24	Eggs, doz.	14	
Rye,	31½a	35	Hides, lb.	3 a	7
Barley,	34 a	37	Wood, cord,	2 25 a 3	00
Hogs, 100 lbs.	3 00 a 3	25	Wheat, bus.	75 a	80
Apples, do	25 a	50	Hams, lb.	6 a	6½
Potatoes,	35 a	44	Onions, bu.	41 a	50
Hay, ton,	8 00 a10	00	Cranberries,	75 a 1	00
Wool, lb.	22 a	28	Buckwheat 100 lbs.	1	25
Pig iron, ton,	31 00 a34	00	Indian meal, "		75
Coal, Leh.	11 00 a13	00	Beef, do	2 00 a 3	00
do Ohio,	4 00 a 5	00	Lard, lb. retail,		08
Peas, bu,	37 a	38	Honey.		12½
Beans,	75 a	80	Apples, dried,	1	75
Beef, bbl.	8 00 a11	00	Peaches, do	a 2	50
Pork,	10 00 a13	00	Clover seed, bu.	4	00
White fish,	6 00 a 7	00	Herd's grass do do	1	00
Trout,	5 50 a 6	00	Flax do		75
Cod fish, lb.	5 a	5¾	Lime, "		75
Cheese,	6 a	7½			

FURS.

R'coon p'me large,	44 a62½	Red Fox no 1	1 25		
do do small,	31 a50	Grey do no 2	37½		
do no 2	12 a25	Wild cat no 1	37½a50		
Mink no 1	37½a50	do 2	25 a30		
M'sk rat p'me	9 a10	Otter no 1	3 00 a3	50	
do no 2	6 a7	Martin no 1	1 12 a1	25	
Deer red per lb	16 a18¾	Fisher no 1	1 25 a1	75	
do grey do	10 a12½	Bear no 1	3 00 a4	00	

PETER'S

BUFFALO WOOL DEPOT,

SECOND YEAR.

I have established a Wool Depot upon the following plan: *First*, The Wool is thrown into 10 sorts; Merino wool being No. 1, the grades numbering down from 1 to 5; the coarsest common wool being No. 5. Saxony wool is thrown into extra, and prime 1 and prime 2.—Combing and De Laines make 2 sorts more. *Second*, I charge for receiving, sorting, storing, and selling, ONE CENT PER POUND; this includes all charges at Depot, except insurance. *Third*, Sales are made for cash, except when otherwise directed by owner.

☞All wool consigned to me should be marked with the owner's name.

Warehouse corner Washington and Exchange streets.

Buffalo, Jan. 1, 1848. T. C. PETERS.

Printed by GARRETT & GEIGER, at their Job Printing establishment, corner of Jefferson and Woodward Avenues, over King's store, Detroit.